

REMARKS

Claims 1-12 and 27-35 are pending in this application. Claims 2-6 and 12 were withdrawn from consideration as directed to a non-elected invention. Claims 13-26 were previously cancelled. Claims 1, 7-11, and 27-35 are under active consideration, with Claims 1, 34, and 35 being independent. In this Amendment, Claims 1, 8, and 9 have been amended, and Claims 27-35 have been added. All amendments submitted herein are made for reasons of clarity with respect to the specification and drawings, and not for reasons related to the statutory requirements for patentability.

Support for the amendments to Claim 1, 8, and 9 may be found, for example, in Figure 7 and col. 7, lines 55-58, of issued U.S. Patent No. 6,290,482 (“the ‘482 Patent”), from which the present application claims priority under 35 U.S.C. § 120. Support for Claims 27-35 may be found, for example, in Figure 7 and col. 9, lines 19-25 of the ‘482 Patent.

The Rejection

Claims 1 and 7-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by at least one of Howarth (U.S. Patent No. 1,991,461), Haeberlein (U.S. Patent No. 2,424,028), Ide (U.S. Patent No. 4,676,668), Barkley (U.S. Patent No. 4,637,738) or Schlereth (U.S. Patent No. 5,176,454).

In the Office Action, it is alleged that

“With respect to the limitation defining a stop, each of the bearings inherently have a stop surface for preventing it from flexing more than a predetermined amount.”

Applicants respectfully traverse this rejection. Applicants also dispute the characterization of the cited art, in particular the statement that the feature whereby each of the bearings has a stop surface for preventing it from flexing is inherent in the cited art. The statement is not supported by any disclosure of any of the cited art, and is based on hindsight reconstruction using Applicants' own teachings.

The Presently Claimed Invention

The presently claimed invention relates to a flexible shoe assembly for use in a molding system. The flexible shoe assembly includes a body for supporting a load, and a force redirector. The body has an upper wearing surface for slideably engaging a complimentary surface of a supported member. The force redirector is disposed in the body, in a plane below the upper wearing surface. The force redirector redirects the force from a peripheral edge of the upper surface to a central force area in the body. In Claim 1, the flexible shoe assembly also includes a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation. In Claim 34, the force redirector comprises a pair of slots in said body forming a web having an integral bearing surface thereon. In Claim 35, the flexible shoe assembly also includes at least one fixation bore extending lengthwise through a lower support of said body.

The Cited Art

Howarth discloses a web-like structure that pivots, but is also restrained from pivoting. Figures 11 and 12 disclose an individual shoe unit, including a base 23 and a

shoe, which are interconnected by neck 22 (web-like structure). The shoe is restricted from pivoting by the pillars 61 and/or the fillers, and the upper surface of the shoe is not bearing. Instead, the bearing material is provided intermediate the shoe and surface 18. Howarth does not disclose or suggest a force redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon, at least one fixation bore extending lengthwise through a lower support of said body, or a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation.

Haeberlien discloses a web-like bearing permitting pivoting. Figures 2 and 3 disclose a bearing in which multiple webs extend upwards, and are integral to portion 5. Separate anti-friction liners 7 are mounted on the upper surface of the web, and the leading edges of all anti-friction liners 7 are rounded 8. The web permits rotational movement. However, Haeberlien fails to disclose or suggest a force redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon, at least one fixation bore extending lengthwise through a lower support of said body, or a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation.

Barkley discloses a web-like bearing that permits pivoting, as shown in Figures 1, 3, and 4. Carriage 11 is fixed to an upper surface of compensator 19 (column 3, lines 36-37) using an adhesive or fasteners (column 3, lines 55-60). A pillow block is fixed to a lower surface of the compensator 19 (column 3, lines 50-52), or is integral with the compensator 19 (column 4, lines 45-48). Barkley also fails to disclose or suggest a force

redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon, at least one fixation bore extending lengthwise through a lower support of said body, or a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation.

Schlereth discloses a web-like bearing permitting pivoting, as shown in Figures 1 and 2. The bearing block 16 contains 2 webs at right angles, which compensate and flex in two directions. An upper member 20 of the bearing block 16 is bolted through openings 22 to a member. A lower member 30 of the bearing block 16 is bolted through openings 18 to the guide carriage 12. Schlereth does not disclose or suggest a force redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon, and there is no fixation bore extending lengthwise through a lower support of said body. There is also no disclosure or suggestion of a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation.

Ide is unrelated to the invention, and discloses a leg-like structure that does not pivot. Rather, the structure translates left/right. Figures 2 and 4 discloses that a base 10 is required, as well as leg-like structure 16. The upper surfaces 14 of pads 13 of the leg-like structure act as bearing surfaces. The lower area of the leg like-structure 16 includes dogs legs 18/20 for "press fitting" into a slot in the base (column 2, lines 49-52). However, Ide does not disclose or suggest a force redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon, at least one fixation bore extending lengthwise through a lower support of said body, or a lower mounting

surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation.

The cited art is silent regarding the feature of a lower mounting surface engaging a complimentary surface within said molding system and providing positioning and adjustment of said shoe assembly during installation. Accordingly, none of the cited art anticipates Claim 1.

As set forth above, with the exception of Ide, none of the cited art discloses or suggests the feature of a force redirector comprising a pair of slots in said body forming a web having an integral bearing surface thereon. Ide does disclose an integral bearing surface, however, it is not integral with a flexible web. Instead, the bearing surface is integral with a leg-like structure. Therefore none of the cited art anticipates Claim 34.

Finally, the cited art discloses or suggests the feature whereby the flexible shoe assembly includes at least one fixation bore extending lengthwise through a lower support of said body. Therefore none of the cited art anticipates Claim 35.

Applicants further submit that no combination of the cited art renders the presently claimed invention unpatentable.

Based on the amendments and remarks set forth above, Applicants respectfully request that the outstanding rejection be withdrawn.

Art of Record Not Relied Upon

Zeidan discloses a web-like bearing that permits pivoting and rotational movement, as shown in Figure 1. A separate bearing pad 2 is mounted on a surface of I-beam web 12, and the base and bottom surface of web include semi-cylindrical grooves to receive a cylindrical rod. However, there is no force redirector comprising a pair of

slots in said body forming a web having an integral bearing surface thereon, there is no fixation bore extending lengthwise through a lower support of said body, and there is no lower mounting surface engaging a complimentary surface within said molding system. Accordingly, Zeidan also fails to disclose or suggest the presently-claimed invention.

CONCLUSION

Based on the amendments and remarks set forth above, Applicants submit that the present application is in condition for allowance. Prompt issuance of a notice thereof is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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